

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: STREETWORKS

Report Number: P158647

Luminaire Tested: **VST-F02-LED-E-U-SL4-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158647
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33714)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-F02-LED-E-U-SL4-7060
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (14) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4914.6 lumens
Efficiency: N/A
Efficacy: 89.4 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 55
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

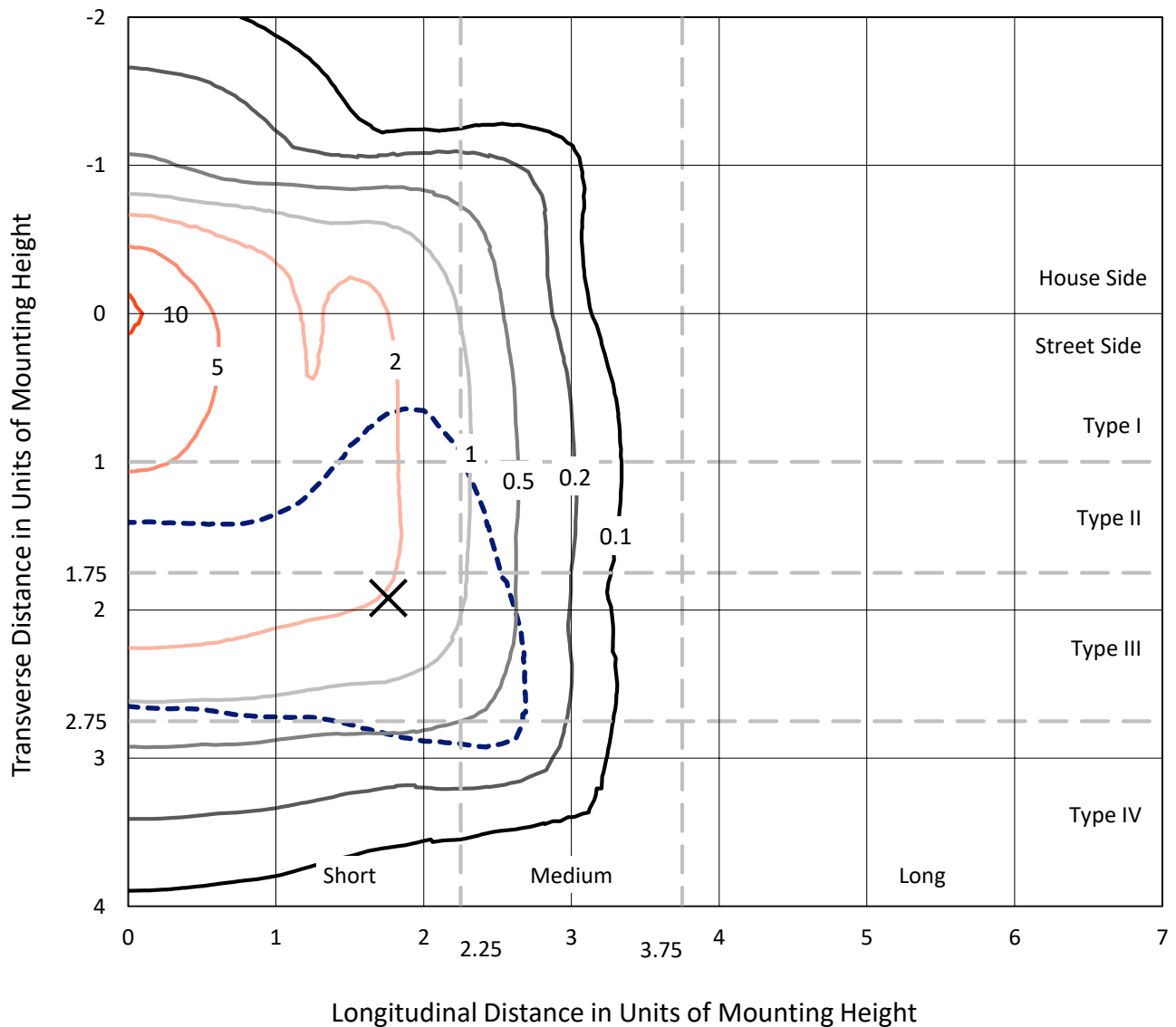


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Iso-Footcandle Lines of Horizontal Illumination

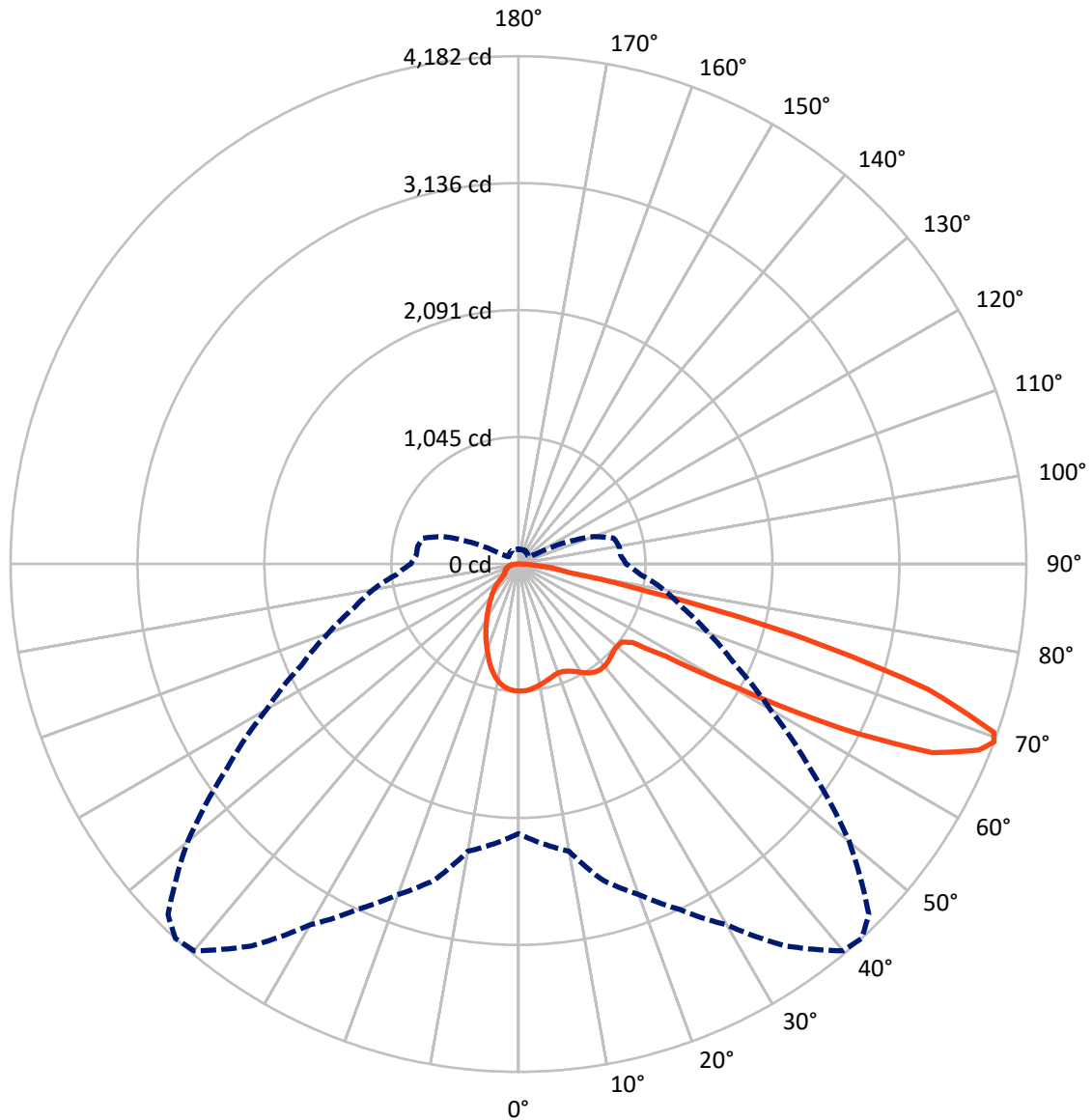
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.5 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 42.5-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1092.6	0.0	1092.6
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	3822.0	0.0	3822.0
	% Fixture	77.8	0.0	77.8
Total	Lumens	4914.6	0.0	4914.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.4	2.0
10°-20°	262.6	5.3
20°-30°	382.9	7.8
30°-40°	488.1	9.9
40°-50°	567.9	11.6
50°-60°	864.1	17.6
60°-70°	1526.5	31.1
70°-80°	629.9	12.8
80°-90°	95.1	1.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	4914.6	100.0
0°-180°	4914.6	100.0



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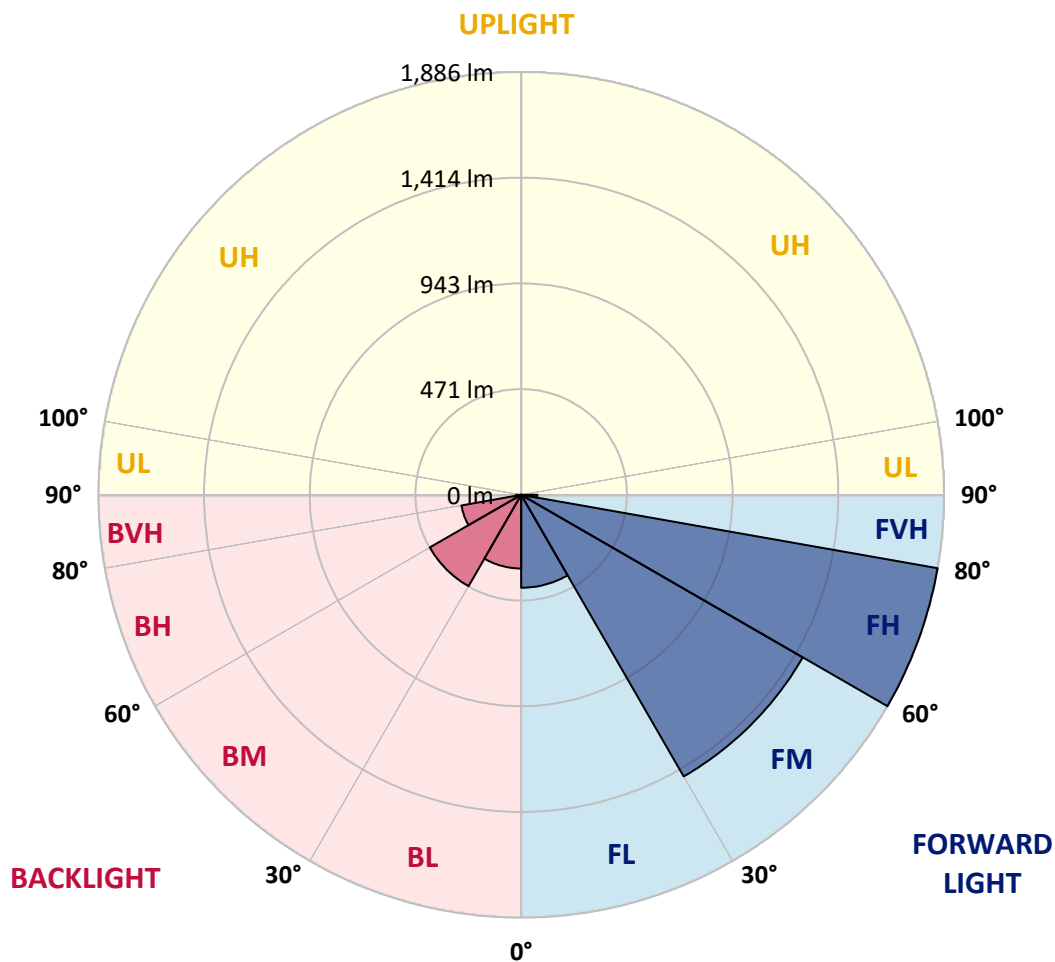
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	414.4	8.4			
FM (30°-60°)	1449.9	29.5			
FH (60°-80°)	1885.7	38.4			G2/5000
FVH (80°-90°)	71.9	1.5			G1/100
BL (0°-30°)	328.5	6.7	B1/500		
BM (30°-60°)	470.3	9.6	B1/1000		
BH (60°-80°)	270.6	5.5	B1/500		G1/500
BVH (80°-90°)	23.2	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	42.5°	45°
0°	1046.6	1046.6	1046.6	1046.6	1046.6	1046.6	1046.6	1046.6	1046.6	1046.6	1046.6
2.5°	1043.3	1047.0	1045.6	1045.6	1046.6	1045.0	1045.0	1045.6	1043.9	1045.0	1044.6
5°	1039.6	1041.5	1040.9	1040.9	1040.9	1039.6	1038.8	1038.5	1036.1	1036.1	1035.1
7.5°	1031.4	1032.1	1033.1	1031.8	1031.4	1031.0	1028.7	1027.3	1024.6	1022.3	1022.9
10°	1020.5	1020.2	1021.9	1020.9	1019.5	1018.5	1016.5	1014.1	1011.1	1008.0	1007.7
12.5°	1008.4	1008.0	1009.4	1008.7	1007.7	1005.7	1004.0	999.9	995.2	991.4	991.1
15°	1000.6	999.5	1000.9	999.5	997.9	995.8	992.8	987.7	979.2	975.5	972.4
17.5°	1008.0	1006.3	1007.0	1005.3	1003.0	997.5	990.4	979.6	967.4	960.9	956.2
20°	1034.1	1031.0	1031.8	1030.0	1024.6	1017.5	1004.0	985.0	964.3	953.8	946.4
22.5°	1071.4	1069.0	1070.0	1068.4	1062.9	1052.0	1031.8	1004.6	975.2	959.9	948.1
25°	1127.9	1130.0	1130.7	1122.9	1119.8	1099.9	1071.7	1034.1	994.8	976.9	960.6
27.5°	1191.7	1191.7	1194.7	1191.7	1185.5	1162.2	1122.5	1077.1	1026.7	1002.2	982.6
30°	1253.7	1253.0	1258.7	1258.1	1248.2	1221.8	1176.8	1121.5	1063.9	1036.5	1011.4
32.5°	1319.4	1321.4	1325.2	1323.8	1310.9	1274.3	1220.1	1160.2	1099.5	1069.3	1041.2
35°	1390.6	1391.6	1393.0	1392.2	1366.1	1320.1	1252.0	1184.9	1121.9	1092.1	1062.9
37.5°	1461.7	1460.7	1459.0	1444.4	1414.6	1350.6	1271.3	1199.1	1133.0	1100.9	1070.7
40°	1525.4	1519.7	1514.2	1491.5	1445.8	1367.9	1278.7	1202.5	1132.0	1098.8	1069.3
42.5°	1560.3	1553.9	1542.7	1514.2	1458.7	1369.6	1273.7	1192.3	1121.5	1088.6	1059.5
45°	1566.8	1562.0	1551.2	1519.3	1455.6	1358.7	1258.1	1175.8	1105.9	1073.1	1045.6
47.5°	1551.5	1547.8	1537.3	1505.8	1442.4	1342.4	1240.1	1158.1	1090.7	1059.8	1033.4
50°	1528.1	1524.7	1516.6	1487.8	1427.5	1331.3	1231.0	1149.0	1085.6	1057.5	1033.1
52.5°	1566.1	1568.8	1545.1	1513.6	1443.4	1341.1	1241.2	1158.5	1094.8	1067.0	1041.5
55°	2156.0	2152.3	2009.6	1890.0	1676.2	1482.4	1337.7	1233.7	1165.6	1137.8	1114.1
57.5°	2801.5	2788.6	2729.9	2618.2	2388.4	2081.8	1802.9	1565.8	1472.2	1432.3	1435.0
60°	3012.2	3016.9	3004.4	2964.8	2882.4	2722.9	2510.8	2332.5	2157.0	2071.3	2081.1
62.5°	3129.1	3137.6	3148.4	3139.6	3112.9	3075.9	3049.1	3065.4	3041.0	2979.4	2930.2
65°	3145.4	3162.7	3198.5	3227.0	3240.9	3275.8	3357.8	3554.3	3733.9	3745.7	3659.3
67.5°	2823.5	2871.2	2949.2	3081.0	3193.8	3317.8	3515.7	3814.6	4079.5	4088.3	4007.7
69°	2220.0	2311.9	2403.0	2697.4	2895.7	3138.6	3431.3	3839.6	4157.1	4181.5	4079.9
70°	1778.9	1833.4	1912.0	2207.8	2504.0	2813.6	3237.8	3757.0	4103.9	4153.0	4040.9
72.5°	1068.0	1089.0	1116.1	1222.1	1374.7	1650.4	2212.9	3063.0	3461.8	3527.6	3384.9
75°	690.5	689.2	691.6	721.0	729.8	782.7	959.9	1575.9	2258.3	2377.6	2206.8
77.5°	520.1	524.8	517.4	520.1	517.7	532.0	537.4	564.2	891.5	1098.1	982.0
80°	459.1	461.5	461.8	460.5	443.9	442.5	451.3	436.1	405.2	411.4	394.1
82.5°	261.9	261.6	264.6	287.6	297.2	328.3	341.2	348.3	321.5	301.6	272.8
85°	169.7	171.1	174.5	181.6	174.5	177.2	174.2	180.2	165.4	153.5	137.2
87.5°	69.5	69.5	73.9	80.3	74.9	73.5	63.0	62.3	52.9	47.8	37.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1046.6	1046.6	1046.6	1046.6	1046.6	1046.6	1046.6	1046.6	1046.6	1046.6	1046.6
2.5°	1042.6	1044.6	1043.6	1045.0	1043.9	1043.9	1042.6	1042.3	1043.3	1041.9	1042.3
5°	1033.4	1033.8	1032.1	1032.8	1030.7	1030.0	1029.0	1026.3	1028.0	1026.3	1027.0
7.5°	1020.2	1019.2	1016.8	1013.5	1011.1	1010.0	1008.0	1004.3	1005.0	1001.9	1003.6
10°	1003.3	999.9	995.8	990.7	987.4	984.3	979.9	975.5	973.1	970.4	970.1
12.5°	984.3	980.2	974.8	967.0	959.6	954.5	947.7	939.9	937.6	933.1	930.8
15°	963.7	957.2	950.8	941.9	933.8	926.0	916.9	907.0	900.6	893.8	888.8
17.5°	945.0	937.6	929.1	920.6	911.8	902.3	890.8	878.6	869.1	856.6	846.4
20°	930.4	920.9	912.5	903.7	893.8	882.3	868.4	852.8	836.9	823.0	811.1
22.5°	924.7	909.8	899.6	890.8	881.0	867.4	850.4	832.1	812.9	793.6	778.0
25°	929.4	907.4	891.5	881.0	872.5	858.6	839.6	817.3	794.9	771.8	750.8
27.5°	943.3	915.2	892.1	875.5	865.7	851.8	831.8	808.1	781.7	755.9	730.2
30°	965.0	928.4	899.3	875.9	860.6	844.7	823.7	796.3	769.5	740.0	711.9
32.5°	986.0	942.3	907.4	877.3	853.9	833.2	809.8	782.7	753.9	723.1	693.9
35°	1000.9	951.4	910.4	874.2	843.4	817.6	792.5	765.4	737.3	705.8	676.0
37.5°	1008.0	956.5	910.8	866.0	829.4	801.0	774.2	747.5	721.0	691.2	663.1
40°	1007.7	956.2	906.1	855.5	812.9	782.7	756.2	730.2	705.4	679.4	653.9
42.5°	1000.2	950.8	899.3	845.4	801.0	767.5	740.0	715.0	693.9	670.9	649.6
45°	988.7	941.6	892.1	840.7	797.6	764.0	734.9	710.5	691.9	670.9	652.6
47.5°	979.9	936.5	893.2	849.1	808.1	773.2	742.4	715.6	699.7	682.7	669.8
50°	981.2	938.9	896.5	854.2	815.6	780.3	750.5	726.1	714.6	710.2	707.2
52.5°	988.4	942.6	906.7	881.3	868.1	841.7	824.0	808.8	817.3	800.6	781.0
55°	1079.2	1064.3	1099.1	1132.0	1173.7	1189.3	1174.4	1171.7	1185.2	1129.0	999.9
57.5°	1454.3	1492.9	1546.7	1575.2	1609.8	1600.6	1566.1	1537.3	1503.4	1437.7	1276.7
60°	2092.3	2063.2	2038.7	1970.0	1913.7	1848.0	1774.8	1712.1	1652.2	1557.6	1383.4
62.5°	2749.6	2547.3	2378.2	2215.0	2083.4	1974.4	1868.3	1774.1	1683.3	1551.5	1364.2
65°	3318.2	2892.2	2574.8	2335.2	2143.1	1977.4	1841.2	1711.1	1595.6	1441.0	1255.7
67.5°	3573.7	3040.0	2578.1	2234.9	1969.0	1744.0	1567.7	1371.2	1241.8	1142.9	1038.5
69°	3554.6	2927.2	2394.2	1971.7	1666.0	1403.8	1214.7	1009.7	885.7	843.7	841.3
70°	3464.5	2736.1	2179.4	1757.9	1408.2	1147.6	966.4	782.3	666.8	638.0	689.2
72.5°	2828.6	1933.4	1365.8	1042.9	802.0	634.0	517.1	410.3	327.7	283.9	293.4
75°	1597.6	895.2	578.7	437.4	369.7	305.6	262.3	223.6	202.3	164.3	130.1
77.5°	580.7	384.2	305.6	264.3	187.4	129.1	108.1	94.6	85.7	85.7	81.7
80°	367.3	289.4	202.0	138.2	102.3	89.1	77.9	68.5	63.0	61.7	63.0
82.5°	229.4	177.2	113.2	86.8	72.8	65.4	56.9	49.8	45.4	44.4	46.4
85°	113.2	87.8	68.8	61.3	57.6	53.5	47.1	40.3	38.9	41.7	48.8
87.5°	33.9	30.2	24.7	25.7	27.1	26.4	21.0	18.3	17.3	22.7	35.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1046.6	1046.6	1046.6	1046.6	1046.6	1046.6	1046.6	1046.6	1046.6	1046.6	1046.6
2.5°	1042.9	1042.6	1043.3	1042.3	1042.9	1043.3	1042.6	1045.6	1043.6	1043.9	1045.3
5°	1027.7	1027.0	1029.7	1029.0	1030.4	1031.8	1031.0	1035.5	1033.8	1035.1	1037.8
7.5°	1002.2	1003.6	1004.0	1004.0	1006.7	1011.1	1012.1	1014.8	1014.8	1018.5	1021.3
10°	968.4	968.7	970.7	970.4	973.8	978.5	979.2	983.9	985.7	991.7	995.5
12.5°	929.1	927.4	927.1	926.7	931.1	936.2	936.8	945.0	948.4	953.8	959.9
15°	885.0	880.6	879.2	882.0	881.0	884.0	887.0	891.5	896.2	907.0	912.5
17.5°	842.0	833.2	830.8	827.8	824.7	824.7	826.1	831.5	841.3	847.1	859.3
20°	797.9	787.4	779.0	770.8	763.7	761.0	761.3	768.1	775.3	784.7	796.3
22.5°	761.0	745.1	730.5	719.7	705.1	704.8	702.7	704.8	712.6	715.0	721.4
25°	729.2	707.8	688.1	670.6	656.3	648.8	646.8	646.1	642.4	641.4	636.7
27.5°	704.4	678.7	653.3	631.9	614.3	604.1	591.2	582.1	568.9	565.5	557.0
30°	684.1	656.3	628.6	600.7	580.7	562.4	540.8	524.8	504.5	491.3	479.8
32.5°	664.4	636.3	608.2	580.7	549.9	521.5	493.0	468.2	445.6	425.2	408.3
35°	648.2	621.4	593.0	559.7	520.4	479.5	445.2	417.1	385.9	364.6	343.3
37.5°	637.7	613.3	584.8	539.1	488.6	444.5	405.6	371.3	339.5	307.3	283.3
40°	632.9	611.6	576.0	520.1	460.8	412.0	369.0	331.0	290.4	254.1	228.4
42.5°	632.6	610.9	563.8	499.1	437.8	384.6	336.8	291.4	246.3	209.0	183.7
45°	638.7	609.9	550.9	481.5	417.4	361.9	304.9	249.7	199.3	171.4	157.9
47.5°	655.0	611.6	540.4	465.2	398.1	334.4	268.4	204.0	162.3	149.4	149.4
50°	684.1	621.4	537.7	453.7	378.8	302.6	223.6	164.7	143.6	143.6	147.7
52.5°	728.8	642.1	542.5	445.6	354.8	260.6	176.2	142.0	137.9	141.7	147.1
55°	831.8	678.7	548.9	431.6	318.2	206.7	145.4	134.2	135.9	140.3	145.4
57.5°	1020.9	757.0	555.7	401.2	259.2	159.2	131.8	131.1	134.2	138.2	142.6
60°	1145.2	856.6	572.9	355.1	196.2	131.5	125.0	129.1	132.8	136.2	139.6
62.5°	1145.2	884.7	585.8	303.6	147.4	119.6	120.6	127.1	131.5	133.1	135.2
65°	1072.1	833.2	542.1	247.3	119.9	112.9	116.6	123.0	127.1	128.4	130.1
67.5°	936.8	736.0	456.7	186.4	107.1	107.1	111.8	116.6	119.9	122.6	125.3
69°	814.6	660.4	402.2	157.9	102.0	102.7	107.4	111.5	115.6	118.9	122.3
70°	726.5	603.8	364.3	143.3	98.9	99.3	104.0	108.4	112.1	115.9	119.9
72.5°	389.0	417.1	276.8	117.6	91.1	92.2	96.5	100.6	104.0	107.8	111.5
75°	132.5	179.2	176.2	96.2	82.3	85.0	87.8	91.5	95.9	98.3	100.3
77.5°	77.6	80.3	93.8	78.2	74.2	75.5	78.6	81.7	85.4	87.8	89.5
80°	65.0	64.7	65.0	63.7	64.7	67.7	69.8	73.9	77.3	77.9	77.6
82.5°	52.9	55.6	55.9	55.2	58.3	60.7	62.3	64.7	64.4	65.0	66.4
85°	47.1	46.7	49.1	49.4	49.4	47.8	48.1	48.1	48.1	49.1	49.4
87.5°	47.1	39.3	30.5	27.4	28.8	27.1	25.7	25.4	28.1	30.8	30.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CATALOG NUMBER: VST-F02-LED-E-U-SL4-7060

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	1046.6	1046.6	1046.6	1046.6	1046.6
2.5°	1046.0	1047.0	1046.3	1046.3	1047.0
5°	1038.8	1040.5	1039.9	1040.5	1040.5
7.5°	1022.6	1025.0	1026.7	1028.3	1027.3
10°	999.2	1003.3	1006.0	1008.0	1007.0
12.5°	964.3	968.0	973.8	977.2	974.5
15°	916.6	927.1	930.4	935.2	932.5
17.5°	866.7	873.2	877.3	881.6	884.3
20°	800.3	805.4	810.8	812.9	809.8
22.5°	720.4	723.1	722.0	725.1	719.0
25°	632.6	634.3	633.3	636.0	630.9
27.5°	549.6	549.2	549.6	546.2	542.8
30°	469.6	466.6	465.2	460.1	459.1
32.5°	398.1	387.6	382.2	374.8	373.1
35°	326.6	311.7	301.9	293.4	289.7
37.5°	262.6	244.6	233.1	225.7	224.6
40°	207.7	191.1	182.9	178.9	178.2
42.5°	169.4	162.3	160.3	160.3	160.3
45°	154.5	154.1	155.9	157.2	157.6
47.5°	151.4	153.5	155.9	157.9	158.6
50°	151.4	153.5	155.2	157.2	157.9
52.5°	150.8	152.5	153.2	154.5	155.2
55°	148.7	149.8	149.8	150.4	151.1
57.5°	145.4	146.0	145.0	145.7	147.4
60°	142.0	142.6	140.9	142.6	143.6
62.5°	138.2	138.6	137.9	139.3	139.3
65°	132.1	131.5	132.5	133.5	133.9
67.5°	126.1	124.4	125.3	125.7	126.4
69°	121.3	120.3	120.6	121.3	122.0
70°	117.9	117.2	117.9	118.9	119.9
72.5°	109.4	109.8	112.1	114.2	116.2
75°	101.6	104.0	107.1	111.5	113.8
77.5°	92.2	93.8	96.2	101.0	105.4
80°	79.6	80.6	81.0	82.7	82.3
82.5°	64.7	63.7	63.0	62.3	62.0
85°	46.4	46.1	43.4	41.3	41.3
87.5°	27.8	26.4	25.1	23.4	22.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)